

DOCKET FILE COPY ORIGINAL

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C.

RECEIVED

JUN - 1 2000

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the matter of Reciprocal  
Compensation for CMRS Providers

)  
)  
)  
)

CC Docket Nos. 96-98, 95-185, and  
WT Docket No. 97-207

COMMENTS OF U S WEST COMMUNICATIONS, INC.

John H. Harwood II  
Lynn R. Charytan  
Jonathan Frankel  
Mary E. Kostel  
WILMER, CUTLER & PICKERING  
2445 M Street, N.W.  
Washington, D.C. 20037  
(202) 663-6000

Robert B. McKenna  
Jeffry A. Brueggeman  
U S WEST, INC.  
1020 19th Street, N.W.  
Washington, D.C. 20036  
(303) 672-2799

Of Counsel: Dan L. Poole

*Counsel for U S WEST  
Communications, Inc.*

June 1, 2000

## SUMMARY

In this proceeding, Sprint PCS asks the Commission to reverse an earlier decision and reclaim an issue it previously found that the states are better positioned to resolve: whether CMRS providers should be exempt from the general presumption that interconnecting carriers will charge symmetrical prices for transport and termination. When the Commission created this presumption in the *Local Interconnection Order* (ironically, at the specific request of CMRS providers), it also provided a process by which carriers can ask states for the very relief that Sprint PCS seeks here. Carriers can provide states with cost data to overcome the presumption and prove that asymmetrical rates should apply instead. Now, rather than avail itself of that process, Sprint PCS asks the Commission to trump it.

Sprint PCS offers only one justification for its request: that wireline and wireless networks are so fundamentally dissimilar that any effort to compare them (and their costs) is a “futile exercise.” But this is simply not true. Although wireline and wireless networks use different technologies, they are organized along parallel hierarchies, perform the same functions, and use shared facilities in nearly the same way. For all relevant purposes, Sprint PCS’s network architecture is nearly a mirror image of a typical wireline digital loop carrier system.

Moreover, Sprint PCS’s proposed approach to reciprocal compensation is economically irrational and would produce absurd results. Its approach rests on the notion that all costs incurred on “shared” facilities are “traffic sensitive” and therefore recoverable in reciprocal compensation, while those incurred on “dedicated” facilities are “non-traffic sensitive” and thus not recoverable. This ignores the indisputable economic fact that *all* costs ultimately are traffic-sensitive; whether they are in a particular instance depends only on the time horizon that is used in the analysis. Sprint PCS also overlooks the fact that, in the most common network architecture currently deployed by incumbent LECs, the majority of the loop plant is “shared.” Sprint PCS’s proffered cost recovery principle thus cannot be reconciled with the Commission’s prior determination that *none* of the costs associated with loops is recoverable in reciprocal compensation. If Sprint PCS’s principle were the general rule, *all* carriers’ reciprocal compensation charges would skyrocket.

In short, Sprint PCS has not provided a sound basis for the Commission to take the question of CMRS reciprocal compensation away from the states, and indeed there is none. Nor has Sprint PCS articulated a viable alternative theory of compensation. Accordingly, the Commission should reject Sprint PCS’s petition.

## **TABLE OF CONTENTS**

SUMMARY .....	i
DISCUSSION .....	2
I. THERE IS NO NEED FOR THE COMMISSION TO OVERRIDE THE NORMAL STATE PROCESS FOR DETERMINING CMRS RECIPROCAL COMPENSATION RATES.....	2
II. SPRINT PCS'S COMPENSATION PROPOSAL IS BASED ON FAULTY PREMISES AND WOULD YIELD IRRATIONAL RESULTS .....	6
A. The Wireline and Wireless Networks Are, in Fact, Equivalent.....	7
B. Whether a Facility Is "Shared" Is Not, and Cannot Be, the Sole Criterion for Including Its Cost in Reciprocal Compensation Rates.....	13
CONCLUSION.....	18

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C.**

In the matter of Reciprocal  
Compensation for CMRS Providers

)  
)  
)  
)

CC Docket Nos. 96-98, 95-185, and  
WT Docket No. 97-207

**COMMENTS OF U S WEST COMMUNICATIONS, INC.**

Sprint PCS invites the Commission to intervene in a matter that the agency has previously decided is more appropriately left to the states: whether to give effect to the strong presumption that interconnecting carriers should charge one another the same prices for transport and termination of local calls. Sprint PCS ignores the fact that the Commission — at the *request* of CMRS providers — specifically applied the presumption of symmetrical rates to non-paging CMRS carriers, and created a process by which carriers could attempt to prove to state PUCs that asymmetrical rates should apply. Nevertheless, Sprint PCS asks the Commission to short-circuit this process and carve out a special exemption for CMRS providers, for no reason other than its belief that comparing wireline and wireless networks is a “futile exercise.”<sup>1</sup>

The Commission should decline Sprint PCS’s invitation. Contrary to Sprint PCS’s argument, the Commission correctly determined that non-paging CMRS carriers should be subject to the same presumption of symmetrical rates as other CLECs. The architecture of Sprint PCS’s network is, in all relevant respects, fundamentally

---

<sup>1</sup> Sprint PCS February 2, 2000 letter at 3.

comparable to a wireline digital loop carrier architecture, in terms of both the functionality of the network and its reliance on shared facilities.

Moreover, the theory of compensation that Sprint PCS would substitute for the Commission's current framework contradicts basic economic principles and would lead to absurd results. Sprint PCS suggests that all costs incurred on "shared" facilities are "traffic sensitive" and as such should be recoverable in reciprocal compensation. But Sprint PCS ignores the principle that *all* costs are "traffic sensitive" at some point, depending on how the time horizon is defined. Sprint PCS also fails to recognize that much of the wireline loop plant is, in fact, shared. Sprint PCS's proposed principle of cost recovery would obliterate the Commission's current distinction between (unrecoverable) loop costs and (recoverable) switching costs, causing reciprocal compensation prices for *all* carriers to skyrocket.

## **DISCUSSION**

### **I. THERE IS NO NEED FOR THE COMMISSION TO OVERRIDE THE NORMAL STATE PROCESS FOR DETERMINING CMRS RECIPROCAL COMPENSATION RATES.**

Sprint PCS argues that the Commission should step in and take away from the states the question of how reciprocal compensation should apply to CMRS providers. But the Commission has already determined the complementary roles that it and the states play in administering reciprocal compensation: as with other aspects of its local competition scheme, the Commission has set out a general framework, which the states apply in individual, fact-specific instances. Nothing that Sprint PCS presents here provides a basis for upsetting this federal-state balance struck by the Commission.

Sprint PCS's only argument in favor of Commission intervention here is that states have "encountered some difficulty" in applying the federal framework.<sup>2</sup> But the supposed "difficulty" Sprint PCS identifies — that the states typically apply symmetrical reciprocal compensation rates notwithstanding the claim that CMRS providers may have different network configurations and hence different transport and termination costs from local exchange carriers — is precisely consistent with the framework the Commission envisioned, which included the possibility of symmetrical compensation even with different networks. *See Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499, 16042-43 ¶¶ 1089, 1091 (1996) ("*Local Interconnection Order*"). Moreover, the Commission offered a solution for such "difficulties," creating an alternate procedure for states to adjust transport and termination rates if cost asymmetries warrant. The states have been conducting proceedings pursuant to the Commission's rules for almost four years, and, to U S WEST's knowledge, neither Sprint PCS nor any other non-paging two-way wireless carrier has availed itself of this alternate procedure in even a single state. Sprint PCS gives no reason why the Commission now should step in and disrupt nearly four years of state proceedings — other than that, to Sprint PCS's disappointment, the overwhelming majority of states have, in the absence of a supporting cost study, found no reason to depart from the Commission's strong presumption that the compensation rates for wireline and CMRS carriers should be symmetrical. This is hardly sufficient reason for the Commission to abandon the current process and take this question back from the states.

---

<sup>2</sup> Sprint PCS February 2, 2000 letter at 1.

As discussed in greater detail below, the Commission ruled in its *Local Interconnection Order* (in large part at the insistence of CMRS providers) that the clear administrative efficiencies and competitive benefits of symmetrical compensation rates for transport and termination justify a presumption that states should set CLEC and (non-paging) CMRS transport and termination rates at the same prices charged by the incumbent LECs. *See Local Interconnection Order* at 16040-42 ¶¶ 1085-89. At the same time, the Commission acknowledged the possibility that some non-incumbents could have substantially different network costs from the incumbent LECs, and that these cost asymmetries could outweigh the efficiencies and competitive benefits of symmetrical compensation rates. The Commission therefore permitted carriers to “submit a forward-looking economic cost study” to the state commission as part of a section 252 arbitration “to rebut this presumptive symmetrical rate.” *Id.* at 16042 ¶ 1089. The Commission authorized the states “to depart from symmetrical rates” if the factual record, built after giving notice and allowing for public participation, justified such a departure. *Id.* *See also* 47 C.F.R. § 51.711(b). The *Local Interconnection Order* specifically contemplated that wireless carriers’ concerns would be addressed through this process. *See Local Interconnection Order* at 16016, 16042 ¶¶ 1041, 1090.

State commissions have conducted numerous section 252 arbitrations between CMRS carriers and wireline incumbents over the past four years, and have uniformly found that compensation should be imposed by symmetrical rates. The rules governing those arbitrations expressly provide a mechanism for carriers seeking to avoid symmetrical rates: they can supply cost studies proving that asymmetrical rates are warranted instead. But to U S WEST’s knowledge, as of the date of this filing, not a

single non-paging two-way wireless carrier has submitted a cost study in any state to rebut the presumption of symmetrical rates, as provided in the Commission's rules.<sup>3</sup> In imposing symmetrical rates for reciprocal compensation, therefore, state commissions have been following the directions of the Commission exactly. Nevertheless, Sprint PCS now wants the Commission to cut short the state process and foreordain the results. There is no reason why the Commission should indulge this end run. The state commissions have been applying the Commission's reciprocal compensation rules to CMRS carriers for some time now, and nothing is gained by starting that process again from scratch at the Commission.<sup>4</sup> As reflected in the Commission's decision in the *Local Interconnection Order* to leave fact-intensive inquiries largely to the states,<sup>5</sup> states are in a far better position than this Commission to compare the costs and configurations of the particular wireless and wireline networks in their jurisdictions and to determine whether any cost differences that exist are significant enough to outweigh the benefits of

---

<sup>3</sup> The only such cost study of which U S WEST is aware was submitted by a paging carrier, and was rejected on substantive grounds by the state commission. See *Petition of AirTouch Paging, Inc., for Arbitration of an Interconnection Agreement with U S WEST Communications, Inc. Pursuant to 47 U.S.C. § 252*, Decision Regarding Petition for Arbitration, Dkt. No. 99A-001T (Colorado PUC April 23, 1999).

<sup>4</sup> In two footnotes, Sprint PCS first suggests offhandedly that 47 U.S.C. § 332(c)(3) might preempt the states from considering CMRS reciprocal compensation rates *at all*, then drops the argument. See Sprint PCS February 2, 2000 letter at 2 n.7; "A Legal Framework for CMRS Call Termination Cost-Based Compensation" at 2 n.2 ("A Legal Framework"). However, the *Local Interconnection Order* (which the Commission entered not only in CC Docket No. 96-98 but also in CC Docket No. 95-185, "Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers") clearly established that section 251(b)(5) of the Act governs transport and termination charges between CMRS and wireline networks, and that section 252 negotiations and arbitrations would set those charges. See *Local Competition Order* at 16016, 16044-45 ¶¶ 1041, 1094-95. State commissions have been acting on the basis of this authority for nearly four years, and it is simply too late for Sprint PCS to be seeking reconsideration of this assignment.

<sup>5</sup> See, e.g., *Local Competition Order* ¶ 22 ("[T]his Order sets minimum, uniform, national rules, but also relies heavily on states to apply these rules and to exercise their own discretion in implementing a pro-competitive regime in their local telephone markets.").



symmetric compensation rates. Sprint PCS needs a better reason to trump the existing framework than its desire to avoid the process established by the Commission.

## **II. SPRINT PCS'S COMPENSATION PROPOSAL IS BASED ON FAULTY PREMISES AND WOULD YIELD IRRATIONAL RESULTS.**

Section 252(d)(2)(A)(ii) of the Act provides that a carrier's reciprocal compensation rates should be based on "a *reasonable approximation* of the additional costs of terminating" calls originated by another carrier, not necessarily a precise calculation. 47 U.S.C. § 252(d)(2)(A)(ii) (emphasis added).<sup>6</sup> The Commission has held that the substantial benefits of having interconnecting carriers charge the same transport and termination prices — in terms of administrative efficiency, equalizing carrier bargaining power, and avoiding gaming — generally will outweigh any inaccuracies that result from using the incumbent's costs as proxies for that of the other carrier. *See Local Interconnection Order* at 16040-42 ¶¶ 1085-1088. Accordingly, the Commission "direct[ed] states to establish presumptive symmetrical rates based on the incumbent LEC's costs for transport and termination of traffic." *Id.* at 16042 ¶ 1089.

At the specific request of CMRS carriers, who then *wanted* a rule allowing them to charge the same transport and termination rates as incumbents,<sup>7</sup> the Commission applied this presumption of symmetrical rates to non-paging wireless carriers. *See id.* at 16044-45 ¶¶ 1094-95. For wireless networks, the states would determine which incumbent facilities are functionally equivalent to the CMRS carrier's plant and choose the most analogous incumbent compensation rate. *See id.* at 16042 ¶ 1090 (describing

---

<sup>6</sup> *See also id.* § 252(d)(2)(B)(ii) (barring states from conducting rate cases to "establish with particularity the additional costs of transporting or terminating calls").

<sup>7</sup> *See Local Interconnection Order* at 16041 n.2625.

inquiry as “whether . . . wireless networks[] perform functions similar to those performed by an incumbent LEC’s” facilities).<sup>8</sup>

Four years later, Sprint PCS is arguing for just the opposite. It now suggests that wireline and wireless networks are so fundamentally different that transport and termination rates cannot be based on the functional equivalence of the elements in these networks. Sprint PCS accordingly asks the Commission to *bar* states from using symmetrical rates and to authorize CMRS carriers to charge termination prices that cover the cost of every single shared facility in their networks. But Sprint PCS’s arguments are based on false premises and lead to absurd results. First, there *is* a basic equivalence between the elements of wireline and wireless networks, in terms of both functionality and the use of shared facilities. Second, Sprint PCS’s simplistic suggestion that whether a facility is shared or dedicated should be the *sole* determinant of whether its cost goes into termination rates ignores that a large portion of the incumbents’ loop plant *also* is shared. Broadly defining “additional costs” as “shared-facility costs” would lead to a massive increase in transport and termination rates (not least because the redefined statutory term would apply to wireline as well as wireless carriers).

**A. The Wireline and Wireless Networks Are, in Fact, Equivalent.**

Sprint PCS’s basic assumption that the wireless and wireline networks are fundamentally incomparable is simply wrong.<sup>9</sup> Sprint PCS’s CMRS network largely parallels U S WEST’s wireline network between its end offices and subscriber premises,

---

<sup>8</sup> See also 47 C.F.R. §§ 51.701(c), (d) (defining “transport” and “termination” in terms of incumbent LEC’s “end office switch, or *equivalent facility*” provided by another carrier) (emphasis added).

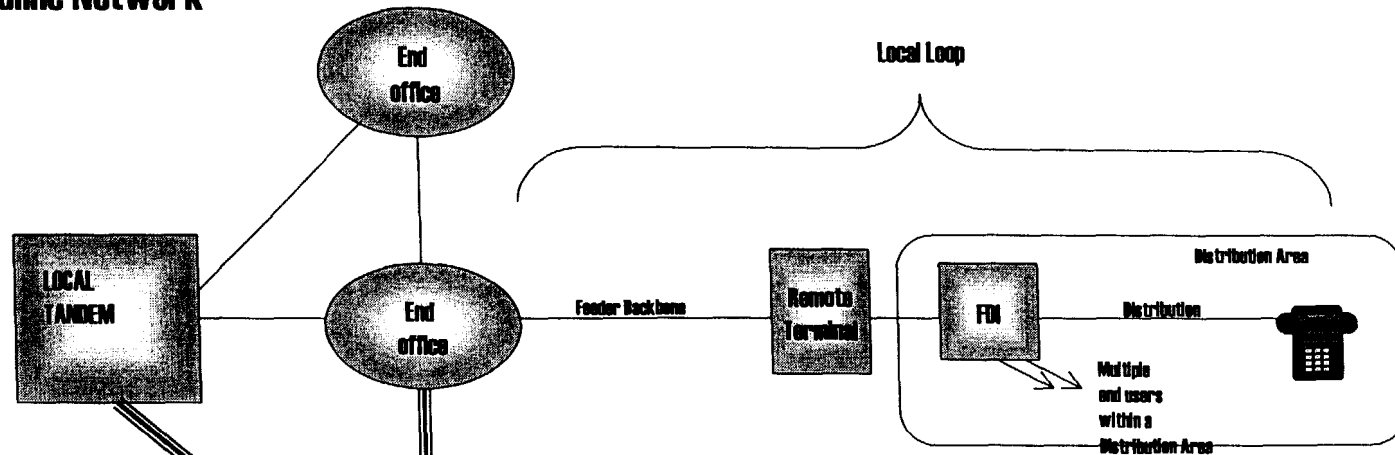
<sup>9</sup> In fact, Sprint PCS’s predecessor, American Personal Communications (APC), previously has argued that the networks *are* comparable. In Comments filed in 1996, APC argued that its network “performs the same functions as a LEC network in terminating calls.” APC Comments at 2, CC Docket No. 95-185 (March 4, 1996).

in terms of both functionality and the use of shared facilities. Sprint PCS's entire case is premised on the inaccurate picture of the wireline loop as nothing more than a dedicated copper wire between an end office and a customer's telephone.

Illustration 1 depicts typical landline and (non-paging) CMRS networks in a given area and shows where the two interconnect. The top half depicts a local wireline architecture based on a digital loop carrier system ("DLC") — the most common architecture incumbent LECs have deployed during the past twenty years. The incumbent's network is made up of a series of *end offices* containing switches that route traffic either among the lines served by that office or to other end offices for further switching. End offices are connected to one another either directly by trunks or indirectly in a hub-and-spoke configuration by means of separate *tandem switches*.

## Illustration 1: Comparison of a Landline Architecture to a Wireless Architecture

### Typical Landline Network



### Typical Wireless Network

As the Commission is aware from its current investigation of SBC's Project Pronto and its consideration of remote terminal unbundling, there is much more between the end office and the customer premises than a simple, dedicated copper wire. In a DLC architecture, the exchange area served by the end office is divided into a number of *distribution areas*, each containing multiple customer premises. *Feeder backbone* cables — either fiber-optic or copper — carry all the traffic destined for a given set of distribution areas from the end office to a *DLC remote terminal* in the field. This feeder backbone is a shared facility, carrying multiplexed traffic to and from *all* of the end users served by a given DLC remote terminal. The DLC remote terminal (also a shared facility) contains cards that convert the optical signals into electrical ones (in the case of fiber-optic cable), step the signals down into individual channels, and send them out on the copper feeder plant to multiple *feeder-distribution interfaces* ("FDIs"), one for each distribution area. The FDI (also shared) is a cross-connect frame that takes the copper feeder cable and fans it out to the individual copper wires (the *distribution plant*) that serve each of the customer premises within the distribution area. This distribution plant is the only part of the local loop that *may* be dedicated to a single end user. Even this last leg, however, may be shared in some cases, such as where the incumbent serves an entire office building with a single trunk, or where the incumbent and a separate DSL provider share the copper plant to a given customer.

The bottom half of Illustration 1 depicts the parallel wireless network. The *mobile switching centers* or "MSCs" (which contain both the mobile telephone exchanges and the base station controllers) act exactly as wireline end offices do, switching calls to and from end users, and multiplexing and demultiplexing these calls onto and off of the

field plant. The MSCs also interconnect with the wireline network, sending traffic to (and receiving it from) the incumbent's end offices or tandem switches. Like wireline end offices, MSCs may be directly trunked to one another. Wireless networks also use tandem switching in precisely the same manner as wireline ones. However, a wireless network does not itself contain the equivalent of the wireline tandem switch that connects multiple MSCs in a hub-and-spoke configuration. Rather, if a CMRS provider wishes to connect multiple MSCs in this fashion, it could send its traffic to the incumbent LEC and purchase the incumbent's tandem switching.

The MSC generally serves multiple *wireless cells* in the CMRS provider's calling area, akin to the multiple distribution areas in the wireline carrier's exchange area. All the traffic traveling to or from a cell travels over a *backhaul facility* — in many cases a loop or private line leased from a wireline LEC — to the *base transceiver and antenna* serving the cell. At the base transceiver and antenna, the individual calls are pulled apart and beamed to the appropriate handset in that cell. The one complexity that does not exist in the wireline network is that wireless handsets can travel between cells, while a wireline telephone line always remains within the same distribution area; hence, there is more back and forth communication between the handset and the MSCs to determine where the handset is located at any given time and route calls accordingly.

Illustration 1 makes clear that wireless and wireline networks follow identical hierarchies, and the individual elements of each network are closely analogous. End offices and MSCs serve the same function and occupy the same places in the network hierarchy: both are the last switch before the end user, both house the NXX, and both are responsible for signaling, call set-up, and answer supervision. Moreover, like end

offices, MSCs connect to one another directly or over wireline LEC tandem switches, and when MSCs interconnect with the wireline network, they do so at exactly the same place in the network hierarchy that an end office occupies. Similarly, wireline backbone feeder and wireless backhaul are shared facilities that carry all the calls to and from multiple customers in given distribution areas or cells. The wireline DLC remote terminal and FDI also perform the same functions as the wireless base station transceiver: aggregating end user traffic and multiplexing it onto shared feeder or backhaul facilities in one direction, and disaggregating traffic in the other and distributing it to the individual end users in a specific distribution area or cell. Finally, portions of both the wireline distribution plant and the wireless spectrum are dedicated to individual end users for the length of their calls, although distribution plant is more frequently dedicated in its entirety to individual end users than spectrum is.

The point-by-point correspondence between the wireless and wireline networks means that the Commission was exactly right when it held (at the *insistence* of CMRS carriers) that interconnecting non-paging CMRS and wireline carriers should presumptively use symmetrical transport and termination rates, just as interconnecting wireline carriers do. *See Local Interconnection Order* at 16041 ¶ 1087. As noted above, the Commission was very aware of the specific issues presented by wireline-wireless interconnection when it adopted its compensation rules, having opened a special docket (CC Dkt. No. 95-185) just to take comment on those issues. The Commission has made clear that most two-way wireless carriers should be treated similarly to wireline LECs, and nothing Sprint PCS now presents explains why the Commission has been wrong for the last four years.

**B. Whether a Facility Is “Shared” Is Not, and Cannot Be, the Sole Criterion for Including Its Costs in Reciprocal Compensation Rates.**

Sprint PCS contends that the Commission’s current reciprocal compensation rules boil down *entirely* to a question of whether a carrier’s transport and termination facilities are shared or dedicated to a single end user. As demonstrated below, this contention is simplistic and economically irrational. Moreover, it would sweep much of the loop costs of a wireline network into the reciprocal compensation scheme, in direct contradiction to stated Commission policy.

In Sprint PCS’s view, if a network facility is shared, the costs of that facility are “additional costs” within the meaning of 47 U.S.C. § 252(d)(2)(A)(ii).<sup>10</sup> Since every part of its network other than the handset is shared, Sprint PCS believes it is entitled to recover the costs of every single piece of its network through reciprocal compensation rates.

The line Sprint PCS hopes to draw between shared and dedicated facilities makes no sense, however, and it is certainly not the one the Commission has drawn to date. Sprint PCS is correct that the Commission has made a clear distinction in the wireline network between the costs of the loop, which are not recoverable in transport and termination prices, and the traffic-sensitive costs of switching, which are. *See Local Interconnection Order* at 16024-25 ¶ 1057. But the Commission’s line does not correspond to the difference between shared and dedicated facilities. As described in the previous section, much of the loop plant between the wireline end office and the customer premises is, in fact, shared. Feeder plant, DLC remote terminals, and FDIs are

---

<sup>10</sup> See “A Legal Framework” at 4 n.10; Bridger M. Mitchell and Padmanabhan Srinagesh, “Transport and Termination Costs in PCS Networks: An Economic Analysis, at 10 (April 4, 2000) (submitted by Sprint PCS as attachment to April 7, 2000 letter) (“Charles River Paper”).



always shared among multiple end users, and even distribution plant is often shared — for example, when a wireline carrier serves a multi-tenant office building with a single trunk or connects to a PBX. If Sprint PCS is right that all shared-facility costs are “additional,” then wireline LECs should be permitted to charge for the majority of their loop plant that is also shared.

Sprint PCS’s attempt to collapse “additional costs” into shared facilities is flawed in two respects. First, Sprint PCS draws its “shared vs. dedicated” distinction from a part of the Commission’s rules implementing TELRIC that is *irrelevant* to the definition of “additional costs” for reciprocal compensation. In those rules, the Commission explained that the costs of “dedicated facilities” must be recovered through “flat-rated charges,” while the costs of “shared facilities” may be recovered either through “flat-rated” or “usage-sensitive” charges.<sup>11</sup> The “shared vs. dedicated” distinction therefore arises in an analysis of *how* to price unbundled network elements, which is vastly different from the question of *whether* a cost is “additional” for the purposes of reciprocal compensation.<sup>12</sup>

Second, Sprint PCS also purports to ground its “shared vs. dedicated” rule in the distinction between traffic-sensitive and non-traffic sensitive costs, but once again Sprint PCS is not summarizing the existing rules accurately or proffering any usable criterion. Sprint PCS is using a remarkably loose definition of “traffic sensitivity” that includes *any* facility for which Sprint PCS must forecast customer demand before initial deployment, or that might require augmentation some time in the indefinite future if demand grows

---

<sup>11</sup> 47 C.F.R. §§ 51.507(b), (c). See “A Legal Framework” at 4 n.10 (citing 47 C.F.R. 51.507(c)); Charles River Paper at 10 & n.22 (same).

<sup>12</sup> Even if this TELRIC rule had some relevance to the question of what is recoverable under reciprocal compensation, the fact that the rule permits states to set charges for shared facilities based on *either* flat *or* usage-sensitive rates undermines Sprint PCS’s argument that shared facilities *incur* costs only on a usage-sensitive basis.

enough. For example, Sprint PCS considers spectrum to be traffic-sensitive, even though the amount it paid for its wireless licenses does not change when the marginal customer speaks for an additional minute, simply because (a) it had to forecast customer demand in figuring out how much spectrum to bid for, and (b) if customer demand ultimately rises beyond a certain point, Sprint PCS may have to subdivide cells or deploy more sophisticated multiplexing equipment.<sup>13</sup>

Sprint PCS is simply playing games with the time horizon here. At some level, *all* costs associated with a communications network ultimately “vary in proportion to the number of calls terminated.”<sup>14</sup> Whether a given cost is “fixed” or “variable” simply depends on the time period being considered; from an economist’s point of view, in the long run, *all* costs are variable.<sup>15</sup> Sprint PCS’s infinite time horizon leads to silly results. For example, Sprint PCS purchases private lines from incumbent LECs such as U S WEST for use as backhaul links connecting its base transceiver systems to its base station controllers,<sup>16</sup> and it purchases these facilities on a non-traffic-sensitive basis. Under Sprint PCS’s theory, it would be allowed to charge those very facilities back to U S WEST as traffic-sensitive costs through per-minute termination rates.

By Sprint PCS’s definition, all of a wireline LEC’s loop costs should be deemed “traffic sensitive” and recoverable through transport and termination rates. U S WEST has to forecast eventual demand when deciding what loop facilities to deploy in a given area — for example, whether to deploy a digital loop carrier system, how many remote

---

<sup>13</sup> See, e.g., “A Legal Framework” at 7-8; Charles River Paper at 12-13.

<sup>14</sup> *Local Competition Order* at 16024-25 ¶ 1057.

<sup>15</sup> See Karl E. Case & Ray C. Fair, *Principles of Economics* 195 (3d ed. 1989).

<sup>16</sup> See Charles River Paper at 15-16.

terminals to deploy, how many distribution areas to create (and how large they should be), and what capacity feeder plant to use. If demand grows significantly because customers move into a distribution area or existing customers demand additional lines when their traffic volumes increase, U S WEST may have to deploy additional capacity in these neighborhoods or subdivide distribution areas, just as Sprint PCS must do. Under Sprint PCS's theory, because the costs of each of these elements would be recoverable, the prices *all* carriers charge for transport and termination could skyrocket.

What is more, the very economist that Sprint PCS has hired to write a paper in support of its position here has previously acknowledged that, for both wireline and wireless networks, additional traffic generally does not impose additional costs:

Only additional traffic that presses on the capacity of network facilities imposes a cost. Since facilities are sized to provide a specified grade of service during the busy hour, only increases in traffic during the busy hour require investments to increase capacity. It is accurate to say that the costs of the shared network facilities are usage sensitive, but only in the sense that they vary with *some* usage, namely usage during the busy hour. These costs are not sensitive to, or increased by, all increases in traffic. Additional traffic outside the busy hour of a facility, which can be accommodated without increasing capacity, imposes almost no additional costs.<sup>17</sup>

Not surprisingly, nothing in Sprint PCS's submissions here, or in the paper submitted by the economist in the present proceeding, refers to this about-face.

Finally, even with respect to the short run, Sprint PCS is wrong to suggest that wireline networks do not face the same capacity constraints as wireless networks. It is simply untrue that, as Sprint PCS's suggests, "[w]hen a person receives a call on a

---

<sup>17</sup> Steven R. Brenner and Bridger M. Mitchell, "Economic Issues in the Choice of Compensation Arrangements for Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers," at 24 (March 4, 1996) (submitted as attachment to Comments of the Cellular Telecommunications Industry Association in *Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, Equal Access and Interconnection Obligations Pertaining to Commercial Mobile Radio Service Providers*, CC Dkts. 95-185, 94-54 (March 4, 1996).

wireline phone, the level of service provided is essentially unaffected by local demand” or that “one’s ability to talk on the phone is not diminished when others in the neighborhood are on their phones.”<sup>18</sup> Wireline LECs do not build enough feeder capacity or end-office line ports sufficient for each and every end user to talk simultaneously; the network is typically engineered with one line port for every four end users and a similar amount of feeder capacity. A high volume of calls therefore *can* result in the “blocking” of wireline calls, much like the “blocking” that Sprint PCS claims occurs in the wireless context. Again, the problems that wireline and wireless networks face in this regard are more alike than different.

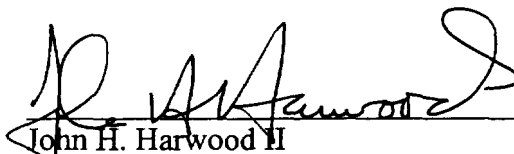
---

<sup>18</sup> “A Legal Framework” at 7.

CONCLUSION

For the reasons set out above, the Commission should reject Sprint PCS's petition.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John H. Harwood II", written over a horizontal line.

John H. Harwood II  
Lynn R. Charytan  
Jonathan Frankel  
Mary E. Kostel  
WILMER, CUTLER &  
PICKERING  
2445 M Street, N.W.  
Washington, D.C. 20037  
(202) 663-6000

Of Counsel:  
Dan L. Poole

Robert B. McKenna  
Jeffry A. Brueggeman  
U S WEST, INC.  
1020 19th Street, N.W.  
Washington, D.C. 20036  
(303) 672-2861

DATE: June 1, 2000

## CERTIFICATE OF SERVICE

I, John Meehan, do hereby certify that on this 1st day of June, 2000, I caused true and correct copies of the foregoing Comments of U S WEST Communications, Inc., to be served by hand via third party messenger, or by facsimile transmission and first class mail, where indicated, upon the following parties:

Chairman William E. Kennard  
Federal Communications Commission  
445 12th Street, SW  
Room 8-B201  
Washington, DC 20554

Commissioner Harold Furchtgott-Roth  
Federal Communications Commission  
445 12th Street, SW  
Room 8-A302  
Washington, DC 20554

Commissioner Gloria Tristani  
Federal Communications Commission  
445 12th Street, SW  
Room 8-C302  
Washington, DC 20554

Wanda Harris  
Competitive Pricing Division  
Common Carrier Bureau  
Federal Communications Commission  
445 12th Street, SW  
Room 5-A452  
Washington, DC 20554

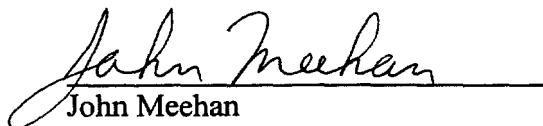
ITS  
1231 20th Street, NW  
Washington, DC 20036

Commissioner Susan Ness  
Federal Communications Commission  
445 12th Street, SW  
Room 8-B115  
Washington, DC 20554

Commissioner Michael Powell  
Federal Communications Commission  
445 12th Street, SW  
Room 8-A204  
Washington, DC 20554

Stacy Jordan  
Policy Division, Wireless Telecommunications  
Bureau  
Federal Communications Commission  
445 12th Street, SW  
Room 3-A431  
Washington, DC 20554

Jonathan M. Chambers (Fax and Mail)  
Sprint PCS  
Vice President, Regulatory Affairs  
401 9th Street, NW, Suite 400  
Washington, DC 20004

  
John Meehan